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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,193	12/07/2000	David L. McKay SR.	0594MH-40108	9479

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EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,193

Applicant(s)

MCKAY, DAVID L.

Examiner

Joy K Contee

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2,7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2,7 and 8, Examiner deems the language "checking for the presence.....and no correlation peak in the output in the output of the second operation" awkward in the context of the limitation. Correction is required.

Regarding claim 8, line 30 on page 15, the term "anyone" is not clear in the preamble.

Specification

3. The disclosure is objected to because of the following informalities:

as provided in 37 CFR 1.77(b), the specification of a utility application should include section headings.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2686

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1,2-4,7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Usui et al. (Usui), U.S. Patent No. 6,411,664.

Regarding claim 1, Usui discloses a method of transmitting a spread spectrum signal in which a product of a lower bit rate and a second PN code equals the bit rate of a higher bit rate signal, and which a first PN-code sequence is used to spread said product or a higher bit rate signal to a predetermined output chip rate (col. 1, lines 28-37 and line 60 to col. 2, line 9 and col. 6, lines 20-27).

Regarding claims 2,7 and 8, in light of the rejection under 35 USC 112, second paragraph, Usui discloses a method of recovering a spread spectrum signal (and a spread spectrum communications system and a spread spectrum receiver) having one of a higher bit rate signal spread by a first PN-code sequence and lower bit rate signal spread by the product of the first PN code sequence and a second PN code sequence, a product of the lower bit rate and chip rate of the second PN sequence equaling the higher bit rate (col. 1, lines 28-37 and line 60 to col. 2, line 9 and col. 6, lines 20-27), comprising receiving and demodulating a spread spectrum signal, successively correlating in a first operation the demodulated signal with the first PN-code sequence and then in a second operation with the second PN-code sequence and determining if a higher bit rate signal is present by checking for the presence of a strong correlation

peak (i.e., high) in the output of the first operation and checking that the output of the second operation does not have a correlation peak and if a lower bit rate signal is present by checking for the presence of at least a weak correlation peak in the output of the first operation and for the presence of a strong correlation peak in the output of the second operation (col. 2, lines 15-33 and col. 6, line 20-28 and col. 10, line 44 to col. 11, line 10).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 4, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usui, in view of Sourour et al. (Sourour), U.S. Patent No. 6,621,858.

Regarding claims 3 and 9, Usui discloses a method as claimed in claims 2 and 8, respectively, but fails to explicitly characterize in that the first and second operations (and means) are carried in respective matched filters.

In a similar field of endeavor, Sourour discloses in that the first and second operations (and means) are carried in respective matched filters (col. 3, lines 11-22 and col. 5, lines 14-53 and see Fig. 8A).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Usui to include multiple matched filters for each PN sequence for the purpose of sampling the signal under changing conditions.

Art Unit: 2686

Regarding claims 4 and 10, Usui as modified by Sourour disclose a method as claimed in claims 3 and 9, respectively, characterized in that a moving (and running) average of the respective matched filters is obtained in order to synchronize detection of peaks in the output of the respective filter (see Usui, col. 14, lines 19-30).

Allowable Subject Matter

8. Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Usui, U.S. Patent No. 6,237,013, discloses a method and device for correlating detection and communication terminal device.

Lavean, U.S. Patent No. 6,141, 332, discloses an orthogonal code synchronization system and method for spread spectrum CDMA communications.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K Contee whose telephone number is 703-308-0149. The examiner can normally be reached on M (alternating), T & Th, 5:30 a.m. to 2:00 p.m.

Art Unit: 2686

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703-305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Joy Contee

September 3, 2004


9/17/04
LESTER G. KINCAID
PRIMARY EXAMINER